



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,900	06/13/2006	Arnaud Bailleul	4590-532	5003
33308	7590	11/03/2010	EXAMINER	
LOWE HAUPTMAN HAM & BERNER, LLP			DAO, THUY CHAN	
1700 DIAGONAL ROAD, SUITE 300				
ALEXANDRIA, VA 22314			ART UNIT	PAPER NUMBER
			2192	
			MAIL DATE	DELIVERY MODE
			11/03/2010	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/582,900	BAILLEUL, ARNAUD	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thuy Dao	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 01 October 2010.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1 and 3-10 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1 and 3-10 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 09 December 2004 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ .	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____ .

### **DETAILED ACTION**

1. This action is responsive to Applicant' reply filed on October 1, 2010.
2. Claims 1 and 3-10 have been examined.

### **Response to Amendments**

3. Claims 1, 3, 5, 6, and 8 have been amended.
4. The objection to claims 1 and 8 is withdrawn in view of Applicant's amendments.

### **Response to Arguments**

5. Applicant's arguments have been fully considered. After upon further consideration, a new ground of rejection is made as set forth in details below.

a) Rejections under 35 USC 102: examiner notes that although the reference Rhapsody-4.1 is still applied, Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action.

b) Rejections under 35 USC 103(a): examiner notes that Rhapsody-4.1 explicitly teaches navigate to DOORS to perform other operations (pages E1-11, E1-21, E1-24...), wherein DOORS is a tool for automating vadiation/verification/traceability tool (Kobry, pages 26, 29, and 31). So, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Kobry's teaching into Rhapsody-4.1's teaching. One would have been motivated to do so to "navigate to DOORS" as suggested by Rhapsody-4.1 (e.g., pages E1-11, E1-21, E1-24...) and perform automate validation/ verification/traceability in DOORS as suggested by Kobry (e.g., page 26, 29, and 31).

### **Claim Rejections – 35 USC §102**

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 1, 3, 4, and 7 are rejected under 35 U.S.C. 102(a) as being anticipated by Rhapsody-4.1 (art of record with a new ground of rejection, "Essential Rhapsody in C++" version 4.1, published January 1, 2003).

**Claim 1:**

*Rhapsody-4.1 discloses a method of requirements traceability based on a UML (Unified Modeling Language) model, comprising the steps of:*

*using a graphics interface (e.g., pages E1-8 and E1-9, Rhapsody user interface as a graphics interface)*

*when creating an element of the UML model (e.g., page E1-9, creating a class/element "Display"; wherein the Rhapsody UI including the left panel "Entire Model View" is equated with "the UML model" as claimed),*

*opening a "add new" function of a modeling tool and (page E1-7, use "new" icon or menu File → New of Rhapsody to create a new project Hello)*

*use a "constraint" option therein (pages E-11 and E1-12, right-click and optionally select "Features", "Delete from Model", or "Navigate to DOORS" → select and use Features/Implementation tab ("a constraint option") to input/attach a requirement std::cout << "Hello World" << std::endl, i.e., the requirement to display "Hello World" in a standard display output)*

*for attaching a requirement immediately on a common element (page E1-11, the requirement to display "Hello World" is immediately inputted/attached (in page E1-12) to Features of constructor Display, which is a common element of the project Hello, Packages, Classes – please see page E1-11, left panel)*

*that contains a set of elements (page E1-11, Features of constructor Display ("the common element" as claimed) has elements General, Implementation, and Properties tabs), and*

*on which the requirement has repercussions* (the requirement inputted/attached in page E1-12 now has repercussions in page E1-21, cout << “Hello World” << end appears in code window of Display)

*in this graphics interface* (pages E1-8 to E1-12 and E1-21, all figures/windows/dialogs/tabs in the Rhapsody interface); and

*wherein the element is systematically filled in with an upward requirement which has given rise to a creation of the element* (e.g., page E1-18, generating code, i.e., creation of said class/element “Display” and said class/element “Display” is generated/inserted/filled in with the implementation requirement/constraint (outputting “Hello World”); page E1-19, successfully outputting “Hello World” as the added/attached requirement/constraint on a standard display output).

**Claim 3:**

Rhapsody-4.1 discloses *the method as claimed in claim 1, wherein when an element of the model is deleted, all the UML requirements attached to this element are likewise deleted* (e.g., page E1-9, when deleting class “Display”, the entire model will be deleted).

**Claim 4:**

Rhapsody-4.1 discloses *the method as claimed in claim 3, wherein all the UML requirements attached to all the elements attached to said element are likewise deleted* (e.g., page E1-10, when class “Display” is deleted, its constructor is also deleted with all attached requirements).

**Claim 7:**

Rhapsody discloses *the method as claimed in claim 1, wherein when an element of the model is deleted, all the UML requirements attached to this element are likewise deleted* (e.g., page E1-9, a class is deleted from the entire model; page E1-11, “Delete from Model”).

### **Claim Rejections – 35 USC §103**

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5, 6, and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhapsody-4.1 in view of Kobryn (art of record, “Visual Requirements-Driven Development with UML 2.0”).

#### **Claim 5:**

Rhapsody-4.1 does not explicitly disclose *the method as claimed in claim 1, comprising exporting the UML requirements to a requirements management tool so as to ensure therein their management and their traceability*.

However, in an analogous art, Kobryn further discloses *the UML requirements are exported to a requirements management tool so as to ensure therein their management and their traceability* (e.g., page 26, 29, and 31).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Kobryn’s teaching into Rhapsody-4.1’s teaching. One would have been motivated to do so to “navigate to DOORS” as suggested by Rhapsody-4.1 (e.g., page E1-11) and perform automate validation and verification in DOORS as suggested by Kobryn (e.g., page 26, 29, and 31).

#### **Claim 6:**

Rhapsody-4.1 discloses *the method as claimed in claim 5, wherein, in the course of the development of the model, the UML requirements are exported to the requirements management tool each time that this model has attained a stable state*.

However, in an analogous art, Kobryn further discloses *the UML requirements are exported to the requirements management tool, in the course of the development of the model, each time that this model has attained a stable state* (e.g., page 26, 29, and 31).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Kobryn's teaching into Rhapsody-4.1's teaching. One would have been motivated to do so to "navigate to DOORS" as suggested by Rhapsody-4.1 (e.g., page E1-11) and iterate testing/validation/verification upon the granularity of the requirements as suggested by Kobryn (e.g., page 26-27, 29, and 31).

#### **Claims 8-10:**

Claims 8-10 depend on claims 6, 3, and 4, respectively, which recite(s) the same limitations as those of claim 5, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claim(s), it also teaches all of the limitations of claims 8-10.

#### **Conclusion**

10. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication should be directed to examiner Thuy (Twee) Dao, whose telephone/fax numbers are (571) 272 8570 and (571) 273 8570, respectively. The examiner can normally be reached on every Tuesday, Thursday, and Friday from 6:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Thuy Dao/ (Twee)  
Examiner, Art Unit 2192